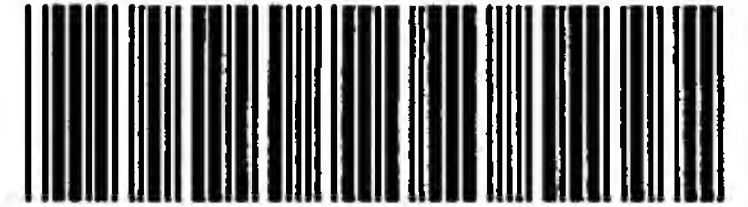# RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10 572,348 A

Source: IFWO

Date Processed by STIC: 4/16/07

ENTERED

IFWO

RAW SEQUENCE LISTING   DATE: 04/16/2007
PATENT APPLICATION: US/10/572,348A   TIME: 12:23:17

Input Set : **A:\revised sequence listing.txt**
Output Set: **N:\CRF4\04162007\J572348A.raw**

```
       5 <110> APPLICANT: Novo Nordisk A/S
       9 <120> TITLE OF INVENTION: Novel GLP-1 derivatives
      13 <130> FILE REFERENCE: 6692-WO
C-->  17 <140> CURRENT APPLICATION NUMBER: US/10/572,348A
C-->  17 <141> CURRENT FILING DATE: 2006-03-17
      17 <160> NUMBER OF SEQ ID NOS: 5
      21 <170> SOFTWARE: PatentIn version 3.1
      25 <210> SEQ ID NO: 1
      27 <211> LENGTH: 31
      29 <212> TYPE: PRT
      31 <213> ORGANISM: Homo sapiens
      35 <400> SEQUENCE: 1
      37 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
      38 1               5                   10                  15
      41 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
      42             20                  25                  30
      45 <210> SEQ ID NO: 2
      47 <211> LENGTH: 40
      49 <212> TYPE: PRT
      51 <213> ORGANISM: Artificial
      53 <220> FEATURE:
      54 <223> OTHER INFORMATION: Synthetic
      58 <220> FEATURE:
      60 <221> NAME/KEY: MISC_FEATURE
      62 <222> LOCATION: (1)..(1)
      64 <223> OTHER INFORMATION: Xaa at position 1 is L-histidine, D-histidine, desamino-
histidine
      65         , 2-amino-histidine, beta-hydroxy-histidine, homohistidine, N-alp
      66         ha-acetyl-histidine, alpha-fluoromethyl-histidine, alpha-methyl-h
      67         istidine, 3-pyridylalanine, 2-pyridylalanine, or 4-pyridylalanine
W-->  68         .
      72 <220> FEATURE:
      74 <221> NAME/KEY: MISC_FEATURE
      76 <222> LOCATION: (2)..(2)
      78 <223> OTHER INFORMATION: Xaa at position 2 is Ala, Gly, Val, Leu, Ile, Lys, Aib, (1-
aminoc
      79         yclopropyl) carboxylic acid, (1-aminocyclobutyl) carboxylic acid,
      80         (1-aminocyclopentyl) carboxylic acid, (1-aminocyclohexyl) carboxy
      81         lic acid, (1-aminocycloheptyl) carboxylic acid or (1-aminocyclooc
W-->  82         tyl) carboxylic acid.
      86 <220> FEATURE:
      88 <221> NAME/KEY: MISC_FEATURE
      90 <222> LOCATION: (10)..(10)
      92 <223> OTHER INFORMATION: Xaa at position 10 is Val or Leu.
```

(pg. 7)

96 <220> FEATURE:

RAW SEQUENCE LISTING   DATE: 04/16/2007
PATENT APPLICATION: **US/10/572,348A**   TIME: 12:23:17

Input Set : **A:\revised sequence listing.txt**
Output Set: **N:\CRF4\04162007\J572348A.raw**

```
 98 <221> NAME/KEY: MISC_FEATURE
100 <222> LOCATION: (12)..(12)
102 <223> OTHER INFORMATION: Xaa at position 12 is Ser, Lys or Arg.
106 <220> FEATURE:
108 <221> NAME/KEY: MISC_FEATURE
110 <222> LOCATION: (13)..(13)
112 <223> OTHER INFORMATION: Xaa at position 13 is Tyr or Gln.
116 <220> FEATURE:
118 <221> NAME/KEY: MISC_FEATURE
120 <222> LOCATION: (14)..(14)
122 <223> OTHER INFORMATION: Xaa at position 14 is Leu or Met.
126 <220> FEATURE:
128 <221> NAME/KEY: MISC_FEATURE
130 <222> LOCATION: (16)..(16)
132 <223> OTHER INFORMATION: Xaa at position 16 is Gly, Glu or Aib.
136 <220> FEATURE:
138 <221> NAME/KEY: MISC_FEATURE
140 <222> LOCATION: (17)..(17)
142 <223> OTHER INFORMATION: Xaa at position 17 is Gln, Glu, Lys or Arg.
146 <220> FEATURE:
148 <221> NAME/KEY: MISC_FEATURE
150 <222> LOCATION: (19)..(19)
152 <223> OTHER INFORMATION: Xaa at position 19 is Ala or Val.
156 <220> FEATURE:
158 <221> NAME/KEY: MISC_FEATURE
160 <222> LOCATION: (20)..(20)
162 <223> OTHER INFORMATION: Xaa at position 20 is Lys, Glu or Arg.
166 <220> FEATURE:
168 <221> NAME/KEY: MISC_FEATURE
170 <222> LOCATION: (21)..(21)
172 <223> OTHER INFORMATION: Xaa at position 21 is Glu or Leu.
176 <220> FEATURE:
178 <221> NAME/KEY: MISC_FEATURE
180 <222> LOCATION: (24)..(24)
182 <223> OTHER INFORMATION: Xaa at position 24 is Ala, Glu or Arg.
186 <220> FEATURE:
188 <221> NAME/KEY: MISC_FEATURE
190 <222> LOCATION: (27)..(27)
192 <223> OTHER INFORMATION: Xaa at position 27 is Val or Lys.
196 <220> FEATURE:
198 <221> NAME/KEY: MISC_FEATURE
200 <222> LOCATION: (28)..(28)
202 <223> OTHER INFORMATION: Xaa at position 28 is Lys, Glu, Asn or Arg.
206 <220> FEATURE:
208 <221> NAME/KEY: MISC_FEATURE
210 <222> LOCATION: (29)..(29)
212 <223> OTHER INFORMATION: Xaa at position 29 is Gly or Aib.
216 <220> FEATURE:
218 <221> NAME/KEY: MISC_FEATURE
```

Input Set : **A:\revised sequence listing.txt**
Output Set: **N:\CRF4\04162007\J572348A.raw**

```
220 <222> LOCATION: (30)..(30)
222 <223> OTHER INFORMATION: Xaa at position 30 is Arg, Gly or Lys.
226 <220> FEATURE:
228 <221> NAME/KEY: MISC_FEATURE
230 <222> LOCATION: (31)..(31)
232 <223> OTHER INFORMATION: Xaa at position 31 is Gly, Ala, Glu, Pro, Lys, amide or is
absent
233         .
237 <220> FEATURE:
239 <221> NAME/KEY: MISC_FEATURE
241 <222> LOCATION: (32)..(32)
243 <223> OTHER INFORMATION: Xaa at position 32 is Lys, Ser, amide or is absent.
247 <220> FEATURE:
249 <221> NAME/KEY: MISC_FEATURE
251 <222> LOCATION: (33)..(33)
253 <223> OTHER INFORMATION: Xaa at position 33 is Ser, Lys, amide or is absent.
257 <220> FEATURE:
259 <221> NAME/KEY: MISC_FEATURE
261 <222> LOCATION: (34)..(34)
263 <223> OTHER INFORMATION: Xaa at position 34 is Gly, amide or is absent.
267 <220> FEATURE:
269 <221> NAME/KEY: MISC_FEATURE
271 <222> LOCATION: (35)..(35)
273 <223> OTHER INFORMATION: Xaa at position 35 is Ala, amide or is absent.
277 <220> FEATURE:
279 <221> NAME/KEY: MISC_FEATURE
281 <222> LOCATION: (36)..(36)
283 <223> OTHER INFORMATION: Xaa at position 36 is Pro, amide or is absent.
287 <220> FEATURE:
289 <221> NAME/KEY: MISC_FEATURE
291 <222> LOCATION: (37)..(37)
293 <223> OTHER INFORMATION: Xaa at position 37 is Pro, amide or is absent.
297 <220> FEATURE:
299 <221> NAME/KEY: MISC_FEATURE
301 <222> LOCATION: (38)..(38)
303 <223> OTHER INFORMATION: Xaa at position 38 is Pro, amide or is absent.
307 <220> FEATURE:
309 <221> NAME/KEY: MISC_FEATURE
311 <222> LOCATION: (39)..(39)
313 <223> OTHER INFORMATION: Xaa at position 39 is Ser, amide or is absent.
317 <220> FEATURE:
319 <221> NAME/KEY: MISC_FEATURE
321 <222> LOCATION: (40)..(40)
323 <223> OTHER INFORMATION: Xaa at position 40 is amide or is absent.
327 <400> SEQUENCE: 2
W--> 329 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Xaa Xaa Glu Xaa
     330 1                   5                   10                  15
     333 Xaa Ala Xaa Xaa Xaa Phe Ile Xaa Trp Leu Xaa Xaa Xaa Xaa Xaa Xaa
     334                     20                  25                  30
     337 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
```

```
    338        35              40
    341 <210> SEQ ID NO: 3
    343 <211> LENGTH: 32
    345 <212> TYPE: PRT
    347 <213> ORGANISM: Artificial
    349 <220> FEATURE:
    350 <223> OTHER INFORMATION: Synthetic
    354 <220> FEATURE:
    356 <221> NAME/KEY: MISC_FEATURE
    358 <222> LOCATION: (1)..(1)
    360 <223> OTHER INFORMATION: Xaa at position 1 is L-histidine, D-histidine, desamino-
histidine
    361       , 2-amino-histidine, beta-hydroxy-histidine, homohistidine, N-alp
    362       ha-acetyl-histidine, alpha-fluoromethyl-histidine, alpha-methyl-h
    363       istidine, 3-pyridylalanine, 2-pyridylalanine, or 4-pyridylalanine
W--> 364       .
    368 <220> FEATURE:
    370 <221> NAME/KEY: MISC_FEATURE
    372 <222> LOCATION: (2)..(2)
    374 <223> OTHER INFORMATION: Xaa at position 2 is Ala, Gly, Val, Leu, Ile, Lys, Aib, (1-
aminoc
    375       yclopropyl) carboxylic acid, (1-aminocyclobutyl) carboxylic acid,
    376       (1-aminocyclopentyl) carboxylic acid, (1-aminocyclohexyl) carboxy
    377       lic acid, (1-aminocycloheptyl) carboxylic acid or (1-aminocyclooc
W--> 378       tyl) carboxylic acid.
    382 <220> FEATURE:
    384 <221> NAME/KEY: MISC_FEATURE
    386 <222> LOCATION: (12)..(12)
    388 <223> OTHER INFORMATION: Xaa at position 12 is Ser, Lys or Arg.
    392 <220> FEATURE:
    394 <221> NAME/KEY: MISC_FEATURE
    396 <222> LOCATION: (16)..(16)
    398 <223> OTHER INFORMATION: Xaa at position 16 is Gly, Glu or Aib.
    402 <220> FEATURE:
    404 <221> NAME/KEY: MISC_FEATURE
    406 <222> LOCATION: (17)..(17)
    408 <223> OTHER INFORMATION: Xaa at position 17 is Gln, Gly, Lys or Arg.
    412 <220> FEATURE:
    414 <221> NAME/KEY: MISC_FEATURE
    416 <222> LOCATION: (20)..(20)
    418 <223> OTHER INFORMATION: Xaa at position 20 is Lys, Glu or Arg.
    422 <220> FEATURE:
    424 <221> NAME/KEY: MISC_FEATURE
    426 <222> LOCATION: (24)..(24)
    428 <223> OTHER INFORMATION: Xaa at position 24 is Ala, Glu or Arg.
    432 <220> FEATURE:
    434 <221> NAME/KEY: MISC_FEATURE
    436 <222> LOCATION: (28)..(28)
    438 <223> OTHER INFORMATION: Xaa at position 28 is Lys, Glu or Arg.
    442 <220> FEATURE:
    444 <221> NAME/KEY: MISC_FEATURE
```

```
    446 <222> LOCATION: (29)..(29)
    448 <223> OTHER INFORMATION: Xaa at position 29 is Gly or Aib.
    452 <220> FEATURE:
    454 <221> NAME/KEY: MISC_FEATURE
    456 <222> LOCATION: (30)..(30)
    458 <223> OTHER INFORMATION: Xaa at position 30 is Arg or Lys..
    462 <220> FEATURE:
    464 <221> NAME/KEY: MISC_FEATURE
    466 <222> LOCATION: (31)..(31)
    468 <223> OTHER INFORMATION: Xaa at position 31 is Gly, Ala, Glu or Lys.
    472 <220> FEATURE:
    474 <221> NAME/KEY: MISC_FEATURE
    476 <222> LOCATION: (32)..(32)
    478 <223> OTHER INFORMATION: Xaa at position 32 is Lys, amide or is absent.
    482 <400> SEQUENCE: 3
W-->484 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Xaa Tyr Leu Glu Xaa
    485 1               5                   10                  15
    488 Xaa Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Xaa Xaa Xaa
    489              20                  25                  30
    492 <210> SEQ ID NO: 4
    494 <211> LENGTH: 39
    496 <212> TYPE: PRT
    498 <213> ORGANISM: Gila monster
    502 <220> FEATURE:
    504 <221> NAME/KEY: MISC_FEATURE
    506 <222> LOCATION: (39)..(39)
    508 <223> OTHER INFORMATION: Amidation of carboxy group.
    512 <400> SEQUENCE: 4
    514 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
    515 1               5                   10                  15
    518 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
    519              20                  25                  30
    522 Ser Gly Ala Pro Pro Pro Ser
    523          35
    526 <210> SEQ ID NO: 5
    528 <211> LENGTH: 44
    530 <212> TYPE: PRT
    532 <213> ORGANISM: Artificial
    534 <220> FEATURE:
    535 <223> OTHER INFORMATION: Synthetic
    539 <220> FEATURE:
    541 <221> NAME/KEY: MISC_FEATURE
    543 <222> LOCATION: (44)..(44)
    545 <223> OTHER INFORMATION: Amidation of carboxy group.
    549 <400> SEQUENCE: 5
    551 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
    552 1               5                   10                  15
    555 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
    556              20                  25                  30
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/16/2007
PATENT APPLICATION: US/10/572,348A   TIME: 12:23:19

Input Set : **A:\revised sequence listing.txt**
Output Set: **N:\CRF4\04162007\J572348A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 1,2,10,12,13,14,16,17,19,20,21,24,27,28,29,30,31,32,33,34
Seq#:2; Xaa Pos. 35,36,37,38,39,40
Seq#:3; Xaa Pos. 1,2,12,16,17,20,24,28,29,30,31,32

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:2,3,5

VERIFICATION SUMMARY   DATE: 04/16/2007
PATENT APPLICATION: **US/10/572,348A**   TIME: 12:23:19

Input Set : **A:\revised sequence listing.txt**
Output Set: **N:\CRF4\04162007\J572348A.raw**

```
L:17 M:270 C: Current Application Number differs, Replaced Current Application No
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:68 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:82 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
M:341 Repeated in SeqNo=2
L:364 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:378 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
```